CLAIMS

1. A method of dewatering grain stillage solids comprising

(i) adding to the solids an effective coagulating and flocculating amount of an anionic polymer comprising one or more anionic monomers selected from acrylic acid sodium salt, 2-acrylamido-2-methyl-1-propanesulfonic acid sodium salt and methacrylic acid sodium salt and optionally one or more acrylamide monomers to form a mixture of water and coagulated and flocculated solids; and

(ii) separating the water from the coagulated and flocculated solids using a dewatering device.

2. The method of claim 1 wherein the anionic polymer is selected from the group consisting of dry polymers, emulsion polymers and dispersion polymers.

3. The method of claim 1 wherein the anionic polymer has an anionic charge of about 10 to about 100 mole percent.

4. The method of claim 1 wherein the anionic polymer has a reduced specific viscosity of about 10 to about 60 dl/g.

5. The method of claim 1 wherein the acrylamide monomer is acrylamide.

6. The method in claim 1 where the anionic polymer further comprisies about 0.005 to about 10 ppm of one or more cross linking agents.

7. The method of claim 6 wherein the cross linking agents are selected from polyethyleneglycol(400)-dimethacrylate or trimethylolpropane ethoxylate (14EO/ 3OH) tri(meth)acrylate.

8. The method of claim 1 wherein the anionic polymer is selected from the group consisting of acrylamide-acrylic acid sodium salt copolymer and acrylamide-2-acrylamido-2-methyl-1-propanesulfonic acid sodium salt copolymer.

9. The method of claim 8 wherein the anionic polymer has an anionic charge of about 10 to about 90 mole percent.

10. The method of claim 8 wherein the anionic polymer has an anionic charge of about 30 to about 70 mole percent.

11. The method of claim 1 wherein the anionic polymer is acrylamide-sodium acrylate-sodium methacrylate terpolymer.

12. The method of claim 11 wherein the anionic polymer has an anionic charge of about 1 to about 50 mole percent.

13. The method of claim 4 wherein the anionic polymer is selected from the group consisting of dry polymers and emulsion polymers.

14. The method of claim 13 wherein the anionic polymer has a reduced specific viscosity of about 15 to about 40 dl/g.

15. The method of claim 1 wherein about 50 to about 1000 ppm of anionic polymer is added to the grain stillage solids.

16. The method of claim 15 wherein the grain stillage solids are corn stillage solids.

17. The method of claim 1 wherein the dewatering device is selected from the group consisting of centrifuges, vacuum filtration devices, recessed chamber presses, plate and frame filter presses, screw presses and belt filter presses.